

CLAIMS:

1. Method for transferring real time information, in particular audio information, the method comprising the steps of

- encoding consecutive segments of the real time information to compressed real time data in frames,

- transmitting a signal carrying the compressed real time data,

- receiving the signal and retrieving the compressed real time data,

- storing the received compressed real time data in a playback buffer, and

- decoding the compressed real time data from the playback buffer, characterized in that the method comprises the steps of

- determining, before transmitting, a buffer occupancy for at least one frame, which buffer occupancy is indicative of an amount of compressed real time data to be present in the playback buffer at the start of decoding said frame,

- transferring the buffer occupancy via the signal,

- controlling the retrieving and/or the decoding in dependence on said transferred buffer occupancy.

2. Signal carrying real time information, in particular audio information, which real time information is encoded to compressed real time data in frames relating to consecutive segments of the real time information,

characterized in that

the signal comprises a buffer occupancy for at least one frame, which buffer occupancy is indicative of an amount of compressed real time data to be present in a playback buffer at the start of decoding said frame.

3. Method for recording audio information on a record carrier, the method comprising the steps of

- encoding consecutive segments of the audio information to compressed audio data in frames, and

- recording the compressed audio data,

Sub
a27

09328025-060899
668090-520266

characterized in that the method comprises the steps of

- determining a buffer occupancy for at least one frame, which buffer occupancy is indicative of an amount of compressed audio data to be present in a playback buffer at the start of decoding said frame, and

5 - recording the buffer occupancy on the record carrier.

4. Method of recording as claimed in claim 3, characterized in that the buffer occupancy is indicative of the amount of compressed audio data to be present in the playback buffer at the start of decoding said frame before the compressed audio data relating to said frame is removed from said buffer.

5. Method of recording as claimed in claim 3, characterized in that determining the buffer occupancy comprises the step of determining the amount of compressed audio data in a recording buffer before or after encoding said frame.

6. Recording device for recording audio information on a record carrier, the device comprising

- compression means (35) for encoding consecutive segments of the audio information to compressed audio data in frames, and

- recording means (38,39) for recording the compressed audio data on the record carrier, characterized in that

- the device comprises determining means (20) for determining a buffer occupancy for at least one frame, which buffer occupancy is indicative of an amount of compressed audio data to be present in a playback buffer at the start of decoding said frame, and in that

25 - the recording means (38,39) are arranged for recording the buffer occupancy on the record carrier.

7. Recording device as claimed in claim 6, characterized in that the device comprises a recording buffer (36), and in that the determining means (20) are arranged for determining the buffer occupancy in dependence on an amount of compressed audio data present in the recording buffer before or after encoding said frame.

8. Record carrier carrying audio information, which audio information is encoded to compressed audio data in frames relating to consecutive segments of the audio informa-

A2
Cont

00328025-1060899
15
20
25

tion, characterized in that the record carrier comprises a buffer occupancy for at least one frame, which buffer occupancy is indicative of an amount of compressed audio data to be present in a playback buffer at the start of decoding said frame.

- 5 9. Record carrier as claimed in claim 8, characterized in that the buffer occupancy is indicative of the amount of compressed audio data to be present in the playback buffer at the start of decoding said frame before the compressed audio data relating to said frame is removed from said buffer.

- 10 10. Record carrier as claimed in claim 8 or 9, characterized in that the record carrier comprises frame information for at least one frame, which frame information is located in a header area associated with said frame, and which frame information comprises the buffer occupancy.

- 5 11. Record carrier as claimed in claim 8, 9 or 10, characterized in that the record carrier comprises a pause area between two audio items, in which pause area a series of buffer occupancies is indicative for a change in transfer speed from a first transfer speed at the end of the preceding audio item to a second transfer speed at the start of the following audio item.

12. Playback device for retrieving audio information from a record carrier as claimed in claim 5, which device comprises

- reading means (22,27) for retrieving the compressed audio data from the record carrier,
- a playback buffer (29), and

- 25 - de-compression means (31) for decoding frames of compressed audio data from the playback buffer to consecutive segments of the audio information, characterized in that the device comprises

- means (28) for retrieving the buffer occupancy for at least one frame from the record carrier, and

- 30 - control means (20) for controlling the reading means and/or the de-compression means in dependence on said retrieved buffer occupancy.

13. Playback device as claimed in claim 12, characterized in that the control means (20) are arranged to control the de-compression means (31) to start decoding a frame when

02
cont

09328025-1060699
668090-5202160

the amount of compressed audio data in the playback buffer substantially corresponds to the buffer occupancy.

02
cnc
5 14. Playback device as claimed in claim 12 or 13, characterized in that the control means (20) are arranged to control the read means to adapt a speed of retrieving the compressed audio data from the record carrier in dependence on a difference between the buffer occupancy and the actual amount of compressed audio data present in the playback buffer at the start of decoding said frame.

668090-52082E60